

**AN AUDIT OF THE DEPARTMENT OF PUBLIC  
WORKS ENGINEERING AND INSPECTION COSTS (JOB#9406)**

**WP # D-0/2-1**

**FIELD WORK AUDIT PROGRAM AND RESULTS FILE**

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Date: January 23, 1997

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APPROVED:

DATE:

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**OBJECTIVE D: TO DETERMINE WHETHER THE CITY OF SAN JOSE  
DEPARTMENT OF PUBLIC WORKS HAS ESTABLISHED  
SUFFICIENT PROJECT MANAGEMENT TECHNIQUES TO  
CONTROL THE COST OF ENGINEERING AND INSPECTION  
SERVICES (420 hours)**

**SUMMARY OF SUB-OBJECTIVES**

**D-1 SUB-OBJECTIVE: To determine whether capital project budgets are adequately estimated, monitored, and controlled. (60 hours)**

**D-2 SUB-OBJECTIVE: To review specific capital projects and determine whether costs are accounted for in an accurate and timely manner. (90 hours)**

**D-3 SUB-OBJECTIVE: To verify that capital project schedules and charges are adequately monitored. (80 hours)**

**D-4 SUB-OBJECTIVE: To assess whether problems and exceptions with project schedules and budgets are identified and reported. (90 hours)**

**D-5 SUB-OBJECTIVE: Summarize results of objective. (100 hours)**

**D-1 SUB-OBJECTIVE: To determine whether capital project budgets are adequately estimated, monitored, and controlled. (60 hours)**

**D-1.1** Conduct interviews with department personnel to document the methods used to monitor and control project budgets.

**NOT STARTED.**

**D-1.2** Review written policies and procedures regarding monitoring and controlling project budgets.

**NOT STARTED.**

**D-1.3** Review literature – journals, project management texts – for standards and criteria pertaining to monitoring and controlling capital budgets.

**NOT STARTED.**

**D-1.4** Interview Department of Public Works and City Budget Office staff re: proposed change in budgeting method for staff funded by capital programs.

**NOT STARTED.**

**D-1.5** Analyze controls in place over existing computer systems providing data to the department:

- are controls sufficient and effective so information produced is accurate and reliable?

**NOT STARTED.**

**D-1.6** Monitor the development and implementation phases of the department's planned Automated Timekeeping System and linked project management system as audit fieldwork progresses.

**NOT STARTED.**

**D-1.7** Summarize sub-objective results:

- Overall assessment and/or conclusion;
- Audit issues and/or findings;
- If information comes to auditor's attention indicating that abuse or illegal acts may have occurred, the Auditor-in Charge will immediately notify the City Auditor and the Supervising Auditor. Audit steps will be extended as necessary and the auditor should determine the extent to which these acts significantly affect the audit results. (*Audit standards FWS 3A and 3B*).

**NOT STARTED.**

**D-2 SUB-OBJECTIVE: To review specific capital projects and determine whether costs are accounted for in an accurate and timely manner. (90 hours)**

**D-2.1** Develop a sampling plan and select a sample of small, medium, and large capital projects accepted in calendar years 1993 and 1994:

- obtain and review project file documentation for each project selected.

**NOT STARTED.**

**D-2.2** Conduct interviews with project managers and other personnel assigned to projects specifically selected for the audit sample:

- investigate cost-monitoring efforts
- how are unauthorized or incorrect charges identified, corrected?

**NOT STARTED.**

**D-2.3** Obtain and review written policies and procedures.

- proper estimates prepared during budget development phase and other phases?
- estimates adjusted considering individual project size?
- evidence of project manager's justification when a project has more than 5% estimated contingency costs?

**NOT STARTED.**

**D-2.4** Conduct a survey of other jurisdictions to collect information on capital budgets, projects, staffing, Engineering and Inspection (E&I) charges. Surveyed cities to include:

- San Diego
- San Francisco
- Sacramento
- Portland
- Phoenix
- Oakland

**NOT STARTED.**

**D-2.5** Conduct interviews with private sector firms providing Engineering and Inspection services equivalent to DPW's in order to compare private sector and DPW charges for such services.

**NOT STARTED.**

**D-2.6** Review literature – journals, project management texts - for standards and criteria pertaining to E&I costs.

**NOT STARTED.**

**D-2.7** Summarize sub-objective results:

- Overall assessment and/or conclusion;
- Audit issues and/or findings;
- If information comes to auditor's attention indicating that abuse or illegal acts may have occurred, the Auditor-in Charge will immediately notify the City Auditor and the Supervising Auditor. Audit steps will be extended as necessary and the auditor should determine the extent to which these acts significantly affect the audit results. (*Audit standards FWS 3A and 3B*).

**NOT STARTED.**

**D-3 SUB-OBJECTIVE: To verify that capital project schedules and charges are adequately monitored. (80 hours)**

**D-3.1** Interview department personnel regarding project schedule and cost-monitoring methods.

**NOT STARTED.**

**D-3.2** Obtain and review reports from financial systems – DPW system: PAC II and Citywide system: FMS – both used by DPW to capture and monitor costs. According to DPW's list of controls:

**PAC II**

- provides adequate cost-monitoring information
- generates reports which show total costs of any project by responsibility center and object detail
- includes costs by position and activity for current month, year-to-date, previous year, and cost-to-date for the entire project
- provides total costs for each project's design and contract administration at the end of each activity grouping

**FMS**

- provides timely cost-monitoring information
- generates reports which show total costs of any project by responsibility center and object detail
- cost information can be sorted by appropriation

**NOT STARTED.**

**D-3.3** Obtain and review various reports, including project budget reports, periodically sent to the City Council and City Administration:

- do they contain information regarding changes in project estimates?
- how are changes resulting in unexpended budget amounts reported?

**NOT STARTED.**

**D-3.4** Interview Finance Department and Budget Office personnel regarding their respective roles in monitoring capital project costs:

- mechanism in Budget Office to monitor cost overruns
- mechanism in Finance Department to prevent additional payment when the project appropriation is expended absent City Council approval for increased funding

**NOT STARTED.**

**D-3.5** Monitor the development and implementation phases of the department's planned Automated Timekeeping System and linked project management system as audit fieldwork progresses. (Same as audit step D-1.6 – document and file D-3.5 fieldwork results at D-1.6)

**NOT STARTED.**

**D-3.6** For applicable projects in the audit sample, review appropriation adjustment requests and Director of Public Works' exception reports to City Council regarding E&I as the cause of increasing capital project costs.

**NOT STARTED.**

**D-3.7** Review listing (if any) of unfunded projects:

- how are project numbers set up?
- who can charge to an unfunded project?
- what method is used to submit costs on unfunded projects to the Finance Committee for approval?

**NOT STARTED.**

**D-3.8** Summarize sub-objective results:

- Overall assessment and/or conclusion;
- Audit issues and/or findings;
- If information comes to auditor's attention indicating that abuse or illegal acts may have occurred, the Auditor-in Charge will immediately notify the City Auditor and the Supervising Auditor. Audit steps will be extended as necessary and the auditor should determine the extent to which these acts significantly affect the audit results. (*Audit standards FWS 3A and 3B*).

**NOT STARTED.**

**D-4 SUB-OBJECTIVE: To assess whether problems and exceptions with project schedules and budgets are identified and reported. (90 hours)**

**D-4.1** Conduct interviews with department personnel:

- investigate cost-monitoring efforts of project managers and staff analysts. (Same as audit step D-1.1 – document and file these D-4.1 results at D-1.1)
- determine whether project managers' experience on prior projects is used, and if so, how it is used.

**NOT STARTED.**

**D-4.2** Determine whether City Council and City Administration receive sufficient and timely information regarding E&I services that increase capital project costs. Specifically, for any applicable projects in the audit sample, review appropriation adjustment requests and Director of Public Works' exception reports to the City Council regarding E&I as the cause of increasing project costs.

**NOT STARTED.**

**D-4.3** Monitor the development and implementation phases of the department's planned Automated Timekeeping System and linked project management system as audit fieldwork progresses. (Same as audit step D-1.6 – document and file D-4.3 fieldwork results at D-1.6)

**NOT STARTED.**

**D-4.4** Determine whether the department gathers information to guide it in costing out E&I for future projects.

**NOT STARTED.**

**D-4.5** Summarize sub-objective results:

- Overall assessment and/or conclusion;
- Audit issues and/or findings;
- If information comes to auditor's attention indicating that abuse or illegal acts may have occurred, the Auditor-in Charge will immediately notify the City Auditor and the Supervising Auditor. Audit steps will be extended as necessary and the auditor should determine the extent to which these acts significantly affect the audit results. (*Audit standards FWS 3A and 3B*).

**NOT STARTED.**

**D-5 SUB-OBJECTIVE: SUMMARIZE RESULTS OF OBJECTIVE (100 hours)**

**D-5.1** Prepare preliminary Finding Development Sheets as appropriate:

- Submit all new or revised Finding Development Sheets to City Auditor with this Audit Program and Results File (APR) according to established bi-weekly schedule.
- Evaluate whether additional audit steps are required to develop the elements of a complete finding.
- At the next bi-weekly meeting, discuss the preliminary findings, or the lack thereof, with the City Auditor to assess whether to revise, expand, or drop subsequent audit objectives and audit steps.

**NOT STARTED.**

**D-5.2** Prepare interim reports to auditee as necessary. (Audit Standard RS-2.2)

**NOT STARTED.**

**D-5.3** Complete numbering, labeling, and cross-indexing of workpapers, APR, workpaper index, and other audit documents. (Procedure 5-02)

**NOT STARTED.**

**D-5.4** In-charge Review of workpapers, APR files, and indexes prepared by others.

- Respond to reviewer's notes as necessary. (*File at A-12*)

**NOT STARTED.**

**D-5.5** Schedule Supervising Auditor review of workpapers and APR files.

- Respond to reviewer's notes as necessary. (*File at A-13*)

**NOT STARTED.**

**D-5.6** Schedule Second Audit Standards Review after final phase of fieldwork. (*Procedure 5-01, Section IV-3.2*)

- Respond to reviewer's notes as necessary. (*File at A-11*)

**NOT STARTED.**